UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,323	10/31/2003	Sanjai Singh	MWS-089	2561

74321   7590   02/21/2008
LAHIVE & COCKFIELD, LLP/THE MATHWORKS
One Post Office Square
Boston, MA 02109-2127

EXAMINER
KENDALL, CHUCK O

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
02/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _25 December 2007_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _See Continuation Sheet_ is/are pending in the application.

　　4a) Of the above claim(s) _4,5,11,20,22,31,35,36,42,46,47 and 53_ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1 – 3, 6 – 10, 12 – 19, 21, 23 – 30, 32 – 34, 37 – 41, 43 – 45, 48 – 52, and 54 – 55_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some *　c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This is in response to Amendment filed 12/25/07.

2.   Claims 1 – 3, 6 – 10, 12 – 19, 21, 23 – 30, 32 – 34, 37 – 41, 43 – 45, 48 – 52, and

54 – 55 have been amended.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1 - 34, 37 - 45, and 48 - 55 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Singh (US Patent 6,868,526) in view of Fontes US 6,912,707.

       Regarding claim 1, 48, and 52, Singh discloses a method, comprising the steps

of:

       receiving an input for selecting a first graphical object in an executable block

diagram representing a system, the first graphical object having one or more properties,

(see for example Fig. 3, item 42,44 and 46, shows receiving a user selection and

enabling the user to make changes) and transformation operations performable on the first graphical object (Fig. 3, 52 see changed parameter values and 54 apply subclass data to graphical class).

Although Singh doesn't expressly disclose displaying a list of <u>one or more</u> transformation operations performable on the <u>first</u> graphical object for <u>transforming the first graphical object into a second graphical object for the executable block diagram, receiving an input for selecting one of the one or more transformation operations; and applying the first one of the one or more transformation operations on the first graphical object</u> for creating the second graphical object, <u>the second graphical object having one or more properties that are different from the one or more properties of the first graphical object,</u> he does disclose storing a difference between the graphical class and the original graphical class (2:25 – 35) and also apply changes to a model (fig. 3, 44).

However, Fontes in an analogous art of morphing and performing object and image editing and transformations (see abstract) discloses comparing a first and second software object, determining the difference between the first and second object and applying the difference to the first object (transform) (FIG. 19, see items 1900 – 1904 and all associated text).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Singh and Fontes because, it would enable creating documents and resolve differences between drawing revisions faster (Fontes 1: 22 – 25).

Regarding claim 2, the method of claim 1, wherein the list is displayed in one of a context menu, a toolbar or a roll-up menu (Singh, see for example Fig. 5d, and related text).

Regarding claim 3, the method of claim 1, wherein the first graphical object is selected by moving a pointer over the first graphical object (Singh, example "clicking on the library node... " see 5:63 – 6:6).

Regarding claim 6, Singh discloses all the claimed limitations as disclosed in claim 1 above.

Although, Singh doesn't disclose a second graphical object, he does disclose an original graphical class and alteration of it (2:25 – 35). However, Fontes in an analogous art and similar configuration thereof discloses a first and second object and applying the difference to the first object (transform) (FIG. 19, see items 1900 – 1904 and all associated text).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Singh and Fontes because, it would enable creating documents and resolve differences between drawing revisions faster (Fontes 1: 22 - 25).

Regarding claim 7, Singh discloses the method of claim 1, wherein the second graphical object has a class that is different from a class of the first graphical object (2: 25 – 35, shows difference between the original and the subclass also see Fontes 1:30 – 40, which shows a first and second image which are different).

Regarding claim 8, Singh discloses the method of claim 1, wherein the <u>second</u>

graphical object is an instance of a superclass of the first graphical object (2: 25 – 35,

see class and subclass).

Regarding claim 9, Singh discloses the method of claim 1, wherein the <u>second</u>

graphical object is an instance of a subclass of the first graphical object (2: 25 – 35, see

class and subclass).

Regarding claim 10, Singh discloses the method of claim 1, wherein the second

graphical object shares a base class with the <u>first</u> graphical object (2: 25 – 35, see class

and subclass).

Regarding claim 12, Singh discloses the method of claim 1, wherein the first

transformation operation is a copy and morph operation (4:5 - 15, see copy and

update).

Regarding claim 13, Singh discloses the method of claim 1, wherein the second

graphical object is a signal tap block for tapping a signal from the first graphical object

(see for example Fig. 5C, and related text).

Regarding claim 14, Singh discloses the method of claim 13, wherein the first

graphical object is a block having an output that represents the signal (see for

example Fig. 5C, and related text).

Regarding claim Claim 15, Singh discloses the method of claim 13, wherein the first graphical object is a line representing the signal (see for example Fig. 5C, and related text).

Regarding claim 16, Singh discloses the method of claim 1, wherein the first graphical object and the second graphical object are functionally related blocks (see for example Fig. 213, item 24 and related text).

Regarding claim 17, Singh discloses the method of claim 1, wherein the first graphical object and the second graphical object are one of source blocks and sink blocks (see for example Fig. 2B, item 24 and related text).

Regarding Claim 18, Singh discloses the method of claim 1, wherein the second graphical object is an inverse graphical object of the first graphical object (see for example Fig. 213, and related text).

Regarding Claim 19, Singh discloses the method of claim 1, wherein one of said second graphical object and said first graphical object is a bus creator block and the other of said second graphical object and said first graphical object is a bus selector block (see for example Fig. 213, and related text).

Regarding Claim 21, Singh discloses the method of claim 1, wherein the second graphical object has implicit links to the first graphical object (see for example Fig. 5E, and related text).

Claim 23, Singh discloses the method of claim 1, further comprising: executing a customized transformation operation (see for example Fig. 3, items 52 and related text).

Regarding claims 24, 37, 50 – 51, 54 and 55, Singh discloses a method of building a diagram, comprising the steps of:

receiving an input for selecting a first graphical object in an executable block diagram (see for example Fig. 3, item 42 and related text) representing a system, the first graphical object having one or more properties;

Although Singh doesn't expressly disclose displaying a list of one or more transformation operations performable on the first graphical object: receiving an input for selecting a transformation operation in the list; and based on the selected transformation operation executing a copy and morph operation on the first graphical object to create a second graphical object for the executable block diagram the second graphical object having one or more properties that are different from the one or more properties of the first graphical object, he does teach copying graphical blocks into their models and updating the model to reflect the most recent version of the block (4:5 – 15) and storing a difference between the graphical class and the original graphical class (2:25 – 35) and also apply changes to a model (fig. 3, 44).

However, Fontes in an analogous art of morphing and performing object and image editing and transformations (see abstract) discloses comparing a first and second software object, determining the difference between the first and second object and applying the difference to the first object (transform) (FIG. 19, see items 1900 – 1904 and all associated text).

Therefore it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine Singh and Fontes because, it would enable creating

documents and resolve differences between drawing revisions faster (Fontes 1: 22 -

25).

Regarding claim 25, Singh discloses the method of claim 24, wherein the first

graphical object <u>outputs</u> a signal, and <u>wherein</u> executing the copy and morph

operation further comprises creating a signal tap block for tapping the signal (see

for example Fig. 5C, and related text).

Regarding claim 26, Singh discloses the method of claim 24, wherein the first

graphical object is a line representing a signal, and wherein executing the copy

and morph operation further comprises:

creating a signal tap block for tapping the signal (see for example Fig. 5C, and

related text).

Regarding claim 27, Singh discloses the method of claim 24, wherein the first

graphical object and the second graphical object are functionally related blocks

(see for example Fig. 213, item 24 and related text).

Regarding claim 28, Singh discloses the method of claim 27, wherein the first

graphical object and the second graphical object are source blocks (see for

example Fig. 2B, item 24 and related text).

Regarding claim 29, Singh discloses the method of claim 24, wherein the second graphical object is an inverse graphical object of the first graphical object (see for example Fig. 213, and related text).

Regarding claim 30, Singh discloses the method of claim 24, wherein one of the second graphical Object or the first graphical object is a bus creator block and the other of the second graphical object and said first graphical object is a bus selector block (see for example Fig. 213, and related text).

Regarding Claim 32, Singh discloses the method of claim 24, wherein the list is displayed in one of a context menu, a toolbar or a rollup menu (see for example Fig. 5E, and related text).

Regarding Claim 33, discloses the method of claim 24, further comprising: receiving a command associated with the copy and morph operation (Fontes, FIG. 19, see items 1900 – 1904 and all associated text).

Regarding Claim 34, Singh discloses the method of claim 33, wherein the command is received from a command line mechanism (see for example Fig. 5D, item 82a and related text).

Regarding claim 38, Singh discloses the method of claim 37, wherein executing the morph operation further comprises: morphing the first graphical object to a signal tap block for tapping a signal (see for example Fig. 5C, and related text).

Regarding claim 39, Singh discloses the method of claim 37, wherein executing the morph operating further comprises: morphing the first graphical object into a functionally related graphical object (see for example Fig. 5C, and related text).

Regarding claim 40, Singh discloses the method of claim 37, wherein executing

the morph operating further comprises:

morphing the selected graphical object into an inverse graphical object (see for

example Fig. 213, item 24 and related text).

Claim 41, Singh discloses the method of claim 40, wherein one of the inverse

graphical object or the selected graphical object is a bus creator block and the

other of said inverse graphical object and said first graphical object is a bus

selector block (see for example Fig. 213, item 24 and related text).

Regarding claim 43, Singh discloses the method of claim 37, wherein the list

displayed in one of a context menu, a toolbar or a rollup menu (see for example

Fig. 5E, and related text).

Regarding claim 44, Singh discloses the method of claim 37, further comprising:

the step of receiving a command associated with the morph operation (Fontes,

FIG. 19, see items 1900 – 1904 and all associated text, see transform).

Regarding claim 45, Singh discloses the method of claim 44, wherein the

command is received from a command line mechanism (see for example Fig. 5D,

item 82a and related text).

Regarding claim 49, Singh discloses the medium of claim 48, further comprising:

one or more instructions for receiving an input for selecting a transformation

operation from the list:

and (Fontes: 10:1 – 5, see rules for transformation operation);

one or more instructions for executing the first transformation operation on the

first graphical object to create the second graphical object (Fontes, FIG. 19, see

items 1900 – 1904 and all associated text, see transform).

Response to Arguments

5.   Applicant's arguments with respect to claims 1 – 3, 6 – 10, 12 – 19, 21, 23 – 30,

32 – 34, 37 – 41, 43 – 45,48 – 52, and 54 – 55 have been considered but are moot in

view of the new ground(s) of rejection.

However, regarding claims 1, 48, and 52, Applicant argues that Singh doesn't

disclose,"...receiving an input for selecting a first graphical object in an executable block

diagram representing a system, the first graphical object having one or more

properties...".

Examiner disagrees. Singh in Fig. 3, discloses receiving a user selection and

enabling the user to make changes to parameter values of a graphical block.

Applicant's plain language of claim merely discloses, receiving input for selecting a first

graphical object in a block diagram, Examiner interprets this to be taught in Singh as

disclosed above. In Singh a graphical block is also disclosed and a user is able to

make selections and provide input to change values. By Examiner's broadest

reasonable interpretation, Examiner believes this limitation is equivalent to Singh

limitations.

With regards to other arguments Examiner has withdrawn Lawton as prior art

and has provided Fontes to teach the claimed limitations not previously recited in

Lawton per Applicant's new amendments.

Conclusion

6.

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chuck Kendall whose telephone number is 571-272-

3698. The examiner can normally be reached on 10:00 am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Dam can be reached on 571-272-3695. The fax phone number for the

organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Chuck O Kendall/

Examiner, Art Unit 2192